CLAIMS

We claim:

1.   A composition comprising a nanoemulsion formulation, wherein the nanoemulsion formulation comprises an aqueous component, an oil component, and a surfactant mixture component, wherein said surfactant mixture component comprises a low HLB value surfactant and a high HLB value surfactant.

2.   The composition of Claim 1, wherein the ratio of said low HLB value surfactant to said high HLB value surfactant is at least 2:1.

3.   The composition of Claim 1, wherein the ratio of said low HLB value surfactant to said high HLB value surfactant is at least 3:1.

4.   The composition of Claim 1, wherein said low HLB value surfactant has an HLB value between approximately 3.3 and 5.3 and the high HLB value surfactant has an HLB value between approximately 14.0 and 16.0.

5.   The composition of Claim 1, wherein said nanoemulsion formulation further comprises a biological agent.

6.   The composition of Claim 1, wherein said nanoemulsion does not contain short-chain alcohols.

7.   The composition of Claim 1, wherein said low HLB value surfactant is present in a greater amount than said high HLB value surfactant.

8.   The composition of Claim 1, wherein said surfactant mixture component comprises a low HLB value non-ionic surfactant and a high HLB value non-ionic surfactant.

9.   A composition comprising a nanoemulsion formulation that permits a skin permeation rate of at least 0.447% per hour for a biological agent in said nanoemulsion formulation.

10.   The composition of Claim 9, wherein said skin permeation rate is selected from at least 0.519% per hour, at least 0.615% per hour, and at least 0.823% per hour.

11.   A composition comprising a nanoemulsion formulation that permits an expression vector to express a recombinant peptide at a mean level of at least 57.0 pg/cm^2 in cells.

12.   The composition of Claim 11, wherein said recombinant peptide is expressed at a mean level selected from at least 100.0 pg/cm^2, at least 285.0 pg/cm^2, and at least 376.0 pg/cm^2.

13.   A composition comprising a nanoemulsion formulation that permits an expression vector to express RNA transcripts at a level of at least 5.0×10^4 transcripts/cm^2 in cells.

14.   A method comprising;
        a) providing;
                i) a nanoemulsion formulation comprising an aqueous component, an oil component, a biological agent, and a surfactant mixture component, wherein said surfactant mixture component comprises a low HLB value surfactant and a high HLB value surfactant, and
                ii) a subject; and
        b) administering said nanoemulsion formulation to said subject.

15.   The method of Claim 14, wherein said nanoemulsion is administered non-parenterally to said subject.

16.   The method of Claim 14, wherein said biological agent is selected from the group consisting of drugs, nucleic acids, expression vectors, and peptides.

5   17.   The method of Claim 14, wherein said biological agent comprises an expression vector.

18.   The method of Claim 17, wherein said subject comprises skin cells and said administering comprises administering said nanoemulsion formulation to said skin cells of said subject such that said expression vector expresses RNA transcripts at a

10   level of at least 5.0 x 10^4 transcripts/cm^2 in said skin cells of said subject.

19.   The method of Claim 18, wherein said RNA transcripts are antisense RNA.

20.   The method of Claim 14, wherein said subject further comprises skin and said nanoemulsion formulation permits a skin permeation rate of at least 0.447%

15   per hour for said biological agent in said skin of said subject.